Xiaoyu Fan

Stern School of Business
New York University
44 West 4th Street
New York, NY 10012

Phone: +1 (917) 834-5084
Email: fx2087@stern.nyu.edu
Web: https://xiaoyufan2087.github.io/
Scholar: Google Scholar

Education

2022 – present

New York University Stern School of Business, New York, NY
Ph.D. Candidate in Operations Management
Advisor: Zhengyuan Zhou

2018 – 2022

Nanjing University Mathematics Department, Nanjing, Jiangsu, China
B.S. in Information and Computational Science

Publications

1. **Sample Complexity of Inventory Control with Setup Costs Beyond Plug-in Demand Estimation**
   Xiaoyu Fan and Zhengyuan Zhou
   Under Review at Mathematics of Operations Research
   ** Finalist, Data Mining Best Student Paper Competition, 2025*
   ** Finalist, INFORMS JFIG Paper Competition, 2024*

2. **No-Regret Learning in Multi-Retailer Inventory Control**
   Xiaoyu Fan, Boxiao Chen, Wenqiang Xiao and Zhengyuan Zhou
   Second Round Major Revision at Management Science

3. **Sample Complexity of Policy Learning for Inventory Control with Censored Demand**
   Xiaoyu Fan, Boxiao Chen and Zhengyuan Zhou
   Under Review at Management Science after Reject & Resubmit
   ** Finalist, INFORMS Undergraduate Operations Research Prize, 2022*

4. **Don't Follow RL Blindly: Lower Sample Complexity of Learning Optimal Inventory Control Policies with Fixed Ordering Costs**
   Xiaoyu Fan, Boxiao Chen, Tava Lennon Olsen, Hanzhang Qin and Zhengyuan Zhou
   Production and Operations Management, 2025

5. **Product Return as a Sequence of Search Processes: Optimality and Search Duration**
   Xiaoyu Fan, Srikanth Jagabathula, Zijian Liu and Eitan Muller
   Major Revision at Operations Research (technical note)

6. **Learning to Bid in Non-Stationary Repeated First-Price Auctions**
   Zihao Hu, Xiaoyu Fan, Yuan Yao, Jiheng Zhang and Zhengyuan Zhou
   Under Review at Operations Research

Working Papers

1. **Personalized Dynamic Pricing and Demand Learning in High-Dimensional Linear Models**
   Yanjun Han, Xiaoyu Fan, Gah-Yi Ban, Srikanth Jagabathula, N. Bora Keskin and Zhengyuan Zhou

2. **Leveraging Product Variations for Personalized Dynamic Pricing**
   Yanjun Han, Xiaoyu Fan, Srikanth Jagabathula and Zhengyuan Zhou

3. **Generative AI, Model Collapse and Intellectual Property Policy**
   Xiaoyu Fan, Arun Sundararajan and Zhengyuan Zhou

Awards and Honors

- Finalist, Data Mining Best Student Paper Competition, 2025
- Finalist, INFORMS JFIG Paper Competition, 2024
- Finalist, INFORMS Undergraduate Operations Research Prize, 2022

Teaching

- **MULT-UB7: Decision Models and Analytics** (Summer 2025) — Instructor
  NYU Stern undergraduate core
  Teaching evaluation: 4.9/5.0 Class size: 15 Response rate: 53%
  Student comments:
  - *"The course content is very good."*
  - *"The instructor's lectures were very clear."*
  - *"Extremely helpful and open during office hours. Takes her time on students during office hours to make sure we understand the concept. Helped make the class a little less intimidating to being very doable."*
  - *"Professor Fan, thank you very much for your instruction and ability to help us understand challenging topics."*
- **OPMG-GB2350: Decision Models and Analytics** (Fall 2024) — Teaching Fellow
- **SHBI-GB7301: Stochastic Modeling** & **Simulation** (Summer 2024) — Teaching Fellow
- **COR1-GB2114: Operations** (Spring 2024) — Teaching Fellow

Seminars and Invited Talks

- INFORMS Annual Meeting, Oct 2025
- NYC Ops Day PhD Colloquium, Mar 2025
- INFORMS Annual Meeting, Oct 2024
- MOILS Seminar, NYU Stern, Sep 2024
- ICSA China Conference, Jun 2024
- POMS-HK International Conference, Jan 2024
- INFORMS Annual Meeting, Oct 2023
- JSM Conference, Aug 2023

- Nanjing University, Jul 2023
- POMS Conference, May 2023
- MOILS Seminar, NYU Stern, Apr 2023
- INFORMS Annual Meeting, Oct 2022

Professional Services

- Organizer: MOILS Seminar, NYU Stern, 2024
- Reviewer: Management Science, Journal of Machine Learning Research, Production and Operations Management, Annals of Operations Research, International Conference on Learning Representations, SIAM Journal on Optimization, IEEE Open Journal of Control Systems, IEEE Robotics and Automation Letters, Operations Research Letters, Conference on Decision and Control